### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-015411 Address: 333 Burma Road **Date Inspected:** 24-Jun-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes Li Yang and Wu Zhi Cheng No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Trial Assembly

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

Orthotropic Box Girder (OBG) Trial Assembly Areas

Segment 9BE to 9CE

This QA Inspector performed Dimension Control Inspection along with Caltrans QA Inspector Mr. Manikandan for the Root Gap and Offset for the Segment 9BE to 9CE between Panel Point (PP) 76 and PP 77 at the following locations.

Edge Panel (Cross Beam Side) Work Point E2 to E1

Side Panel (Cross Beam Side) Work Point E1 to E3

Bottom Panel Work Point E3 to E4

Side Panel (Cross Beam Side) Work Point E4 to E6

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Edge Panel (Cross Beam Side) Work Point E6 to E5

Deck Panel from Work Point E5 to E2

Segment 11AE (Green Tag DCP)

This QA Inspector performed Green Tag DCP along with Mr. Manikandan for the Segment 11AE from Panel Point (PP) 95 towards 94.75 after Heat Straightening.

Skin Flatness for Side Panel to Corner Assembly Longitudinal Weld Cross Beam side from PP 95 towards PP 94. 75.

The measured readings were recorded on Dimension Control Forms and submitted to the Task Leader and Engineer for review.

Suspender Bracket (At Bay # 19)

This QA Inspector performed Dimension Control Inspection for the Suspender Bracket Lifting Rod Hole Spacing by placing the Socket (Template). Inspection performed jointly along with ABF Survey Team for the following mentioned Suspender Bracket at Bay # 19.

SB60E

The measured readings were recorded in the Dimension Control Form (DCP) and submitted to the Caltrans Engineer for review.

Segment 8AW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SSD25-PP063-227. The welder number is identified as 067765 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

Segment 9BE to 9CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as BP125-001-030. The welder number is identified as 222396 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F.

Segment 9BE to 9CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as BP071-001-022. The welder number is identified as 220066 and was

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observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-T-2233-B-U2-F.

## Segment 9BE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as BP071-001-053, 054. The welder number is identified as 220066 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

#### Segment 9BE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as BP179-001-049, 050. The welder number is identified as 222396 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

## Segment 9CE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as BP072-001-041, 042. The welder number is identified as 220066 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

#### Segment 9BE

This QA Inspector observed Flux Cored Arc Welding (FCAW) in progress of a fillet weld joint. The Weld joint is designated as BP180-001-037, 038. The welder number is identified as 222396 and was observed welding in the 2F (horizontal) position using approved Welding Procedure Specification WPS-B-T-2132.

#### Segment 8CW

This QA Inspector observed during the Visual Inspection out of Flatness, confirmed by Dimension Control Inspection and measured the deformation as 17mm with 1500mm Straight Edge with single point contact.

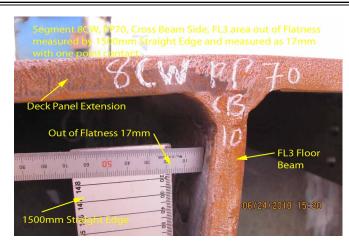
Please refer the pictures attached below for more comprehensive details.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

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# **Summary of Conversations:**

No relevant conversations.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric T Sang 1500-0042-2372, who represents the Office of Structural Materials for your project.

| Inspected By: | Math, Manjunath | Quality Assurance Inspector |
|---------------|-----------------|-----------------------------|
| Reviewed By:  | Carreon, Albert | QA Reviewer                 |